DOCKETED	
Docket Number:	21-AFC-02
Project Title:	Willow Rock Energy Storage Center
TN #:	265265
Document Title:	Rebuttal Testimony
Description:	N/A
Filer:	Kathryn Stevens
Organization:	WSP USA Inc.
Submitter Role:	Applicant Consultant
Submission Date:	8/6/2025 2:32:23 PM
Docketed Date:	8/6/2025

Rebuttal Testimony

Willow Rock Energy Storage Center (21-AFC-02)

Submitted by:

GEM A-CAES LLC

Submitted by:

WSP USA Inc.

401 B Street, Suite 1650, San Diego, California, USA 92101

August 2025

Table of Contents

1.0 INTRODUCTION

Attached is GEM A-CAES LLC's (the "Applicant's") rebuttal testimony, and response to Ileene Anderson's Opening Testimony (TN 265163) in support of the Willow Rock Energy Storage Center (WRESC) (21-AFC-02) evidentiary hearings. Responses to the California Energy Commission Staff's testimony and Final Staff Assessment (FSA) (TN 264843) were previously filed as part of the Applicant's testimony and evidence filed on July 30, 2025 (TN 265170). **Attachment A** presents the accompanying declarations of the subject matter experts that contributed to this rebuttal testimony.

REBUTTAL TESTIMONY OF KATE MOSS, SCOTT CRAWFORD, DAVID STEIN, AND CODY NIEHUS

Q: Please state your name and business affiliation.

A: My name is Kate Moss, and I am a Principal Biologist employed by WSP Canada Inc.

A: My name is Scott Crawford, and I am the Biological Group Manager for WSP USA Inc.

A: My name is David Stein, and I am a Senior Vice President employed by WSP USA Inc.

A: My name is Cody Niehus, and I am a Development Manager employed by Hydrostor Inc.

Q: Please describe your professional experience and qualifications in connection to your rebuttal testimony herein.

A: Our qualifications are set forth in Appendices A and B to the Applicant's Opening Testimony filed on July 30, 2025 (TN 265170).

Q. What is the purpose of your rebuttal testimony?

A. The purpose of our testimony is to rebut the testimony of Ileene Anderson submitted on behalf of the Center for Biological Diversity in this proceeding (TN 265163).

2.0 IMPACTS TO WESTERN JOSHUA TREE WOODLANDS

Q: Have you reviewed Ms. Anderson's first argument that the FSA fails to adequately identify, evaluate, avoid, minimize, and mitigate impacts to western Joshua tree woodlands?

A: Yes.

Q: Do you agree with her conclusions?

A: No.

Q: Can you please explain why?

A: First, on page 3 of her testimony, Ms. Anderson asserts that the FSA fails to address the distinction between impacts to individual western Joshua trees and impacts to existing dense stands of western Joshua trees known as western Joshua tree woodlands. This is incorrect.

Page 5.2-148 of the FSA clearly articulates that the western Joshua tree woodland was mapped solely in the northern portion of the "optional "gen-tie alignment. Pages 5.2-148 through 5.2-152 of the FSA address the potential impacts to western Joshua tree woodland, whereas FSA pages 5.2-155 through 5.2-158 address the potential impacts to individual western Joshua trees. While the Applicant may not agree with all of the conclusions in the biological resources of the FSA, the FSA appropriately identifies and addresses the distinction between individual western Joshua trees and western Joshua tree woodlands as it devotes separate sections of analysis to each.

Second, Ms. Anderson's statement on page 4 of her statement that "the precise acreage of Joshua tree woodland that would be impacted remains uncertain pending additional surveys" is incorrect. As demonstrated in the

extensive submittals made by the Applicant to date, the areas potentially impacted by the project have been subject to extensive biological resources surveys and analysis.

In particular, western Joshua tree woodlands were identified in the supplemental AFC during the background data review of the "California Vegetation Map in Support of the Desert Renewable Energy Conservation Plan" (Reyes et al. 2021)[1] and further evaluated in the Willow Rock Center for Biological Diversity Data Request Set 1 Response (TN 260809). A 74.66-acre western Joshua trees woodland polygon was identified along the Project Area's gen-tie options 2a and 2b as seen in Attachment 1261 – Confidential Mapbook Figure 4 (TN 261844). Sensitive Ecosystem Mapping obtained from background resources was field verified during surveys conducted in 2023 and 2024 and updated at a 10-acre scale. Western Joshua tree census surveys conducted in 2023, and in April and December of 2024, did not record western Joshua trees in the majority of woodland areas overlapping with these route options.

Background data on sensitive ecosystem mapping determined in "California Vegetation Map in Support of the Desert Renewable Energy Conservation Plan" was field verified in 2023 and 2024 and background mapping was updated at a 10-acre scale based on field documented conditions. Western Joshua tree woodland was not identified in the WRESC site, and P1 and P2 storage locations from background resources or field review, indicating that these areas did not meet the criteria for classification as Joshua tree woodland under the California Department of Fish and Wildlife's (CDFW's) definitions and mapping protocols. The Joshua tree woodland located on the gen-tie options 2a and 2b was not modified based on field verification. It is important to note that these routes are not the preferred alignment. The preferred alignment was selected based on land ownership conformity with existing land uses and minimized biological impacts. Western Joshua tree census programs were conducted in 2023, April 2024, and verified on December 8 and 9, 2024; the results of the western Joshua tree census were docketed in TN 258311 – Willows Rock Joshua Tree Census 2024 Addendum, I, TN 260809 -- Attachment DR5-1, TN 261314 -- Attachment DR126-1, and TN261844 -- Attachment 1261 – Confidential Mapbook Figure 4.

As explained on page 37 of the Applicant's Opening Testimony, the Applicant estimated canopy coverage in the WRESC, P1, and P2 sites as less than 1% western Joshua tree. The California Native Plant Society (CNPS) defines a Joshua tree woodland as areas where western Joshua tree provides at least 1% cover while Juniperus and/or Pinus species provide less than 1% of the cover in the tree canopy. While the Project site supports western Joshua tree, which will be managed via Condition of Certification (COC) Bio-12, canopy density does not achieve the 1% threshold identified by CNPS nor has the area been mapped as western Joshua tree woodland by CDFW through the Vegetation Classification and Mapping Program.

In summary, with respect to the WRESC site, the entire approximately 90-acre site has been surveyed, and a WJT census was conducted according to the Census Instructions provided by CDFW. As such, a WJT census has been completed for the entire WRESC site, including P1 North, P2 North, P2 South, and the Villa Haines site. The WJT census also included the gen-tie line other than areas where the Applicant did not have access.

Third, Ms. Anderson's assertion that the FSA fails to "avoid, minimize and mitigate impacts to western Joshua Tree woodlands" fails to recognize that the Applicant has already incorporated her proposed measures into the WRESC project design. Specifically, with respect to the WRESC gen-tie line, Ms. Anderson states on page 5 of her testimony, "I believe it is possible to avoid impacts to western Joshua tree woodlands by carefully siting these

[1] Reyes E, Glass A, Menke J, Evens J, Sikes K, Keeler-Wolf T, Johnson D, Winitsky S, Hepburn A. 2021. California Vegetation Map in Support of the Desert Renewable Energy Conservation Plan, Contract L17PX00036. Final Report. Prepared for the U.S. Bureau of Land Management. Aerial Information Systems, Inc., Redlands, CA.

construction features or, at a minimum, minimize impacts to western Joshua tree woodlands from these construction features." The Applicant has already proposed to avoid mapped western Joshua tree woodlands along the gen-tie line by siting poles and tensioning sites away from this mapped plant community.

For example, proposed pole locations, access road locations and pull tensioning sites were identified in Attachment DR84-1_Confidential (TN 260240) and Willow Rock Data Request Set 2 Response, Attachment DR35-1 (TN 265095 and TN 265096) for the preferred gen-tie alignment. The proposed locations do not overlap with identified areas of western Joshua tree woodland, and impacts to western Joshua tree woodland would be avoided under the preferred scenario.

If the preferred route is deemed infeasible, and either option 2a or 2b is pursued, pole foundation placement, access roads and potential pull tensioning sites will be micro-sited to minimize impacts to western Joshua tree woodland. Where avoidance is impractical, mitigation will be implemented, including.

- *Western Joshua Tree Relocation Plan (BIO-12): requires avoidance, minimization, and mitigation of impacts to WJT through relocation, long-term monitoring and compensatory measures.*
- *Vegetation Management Plan (BIO-8): requires revegetation of temporarily disturbed areas and sets success criteria for native cover and weed control. In compliance with BIO-8, all temporarily impacted areas will be recontoured, scarified, and stabilized with a seed mix consisting of local natives. Salvaged topsoil, seed bank and woody debris will be respread on temporarily disturbed areas, supporting the recovery of desert habitats.*
- *Integrated Weed Management Plan (BIO-9): requires the prevention and control of weed infestations that could degrade native habitats. Compliance with BIO-9 manages the introduction and proliferation of nonnative invasive weeds.*
- *Invasive Species Management Plan (BIO-10): requires the control and prevention of the introduction, transfer, and spread of invasive species, including plants, animals, and microbes.*
- *Drainage Erosion and Sedimentation Control Plan (DESCP) (WATER-1): requires management of stormwater during Project construction and operations. Compliance with WATER-1 requires the prevention of off-site flooding potential, provisions for sediment and stormwater retention from both the main facility and transmission right of way, and ensures protection of water quality and soil resources through monitoring and maintenance activities.*

These measures, along with proposed project design and construction features, will reduce potential impacts to western Joshua tree and western Joshua tree woodlands on the optional gen-tie alignment, if used such that they are less than significant.

3.0 PRE-CONSTRUCTION CENSUS OF WESTERN JOSHUA TREES

Q: Did you review Ms. Anderson's second argument that the FSA fails to require a complete, pre-construction census of western Joshua trees across the entire project area, including gen-tie alignments?

A: Yes.

Q: Do you agree with her conclusion that the Applicant's Western Joshua Tree census data for the project site is incomplete?

A: No. Complete census surveys were conducted for WJT across the project area, including the gen-tie alignments. Areas with no right of entry were necessarily excluded from the survey. As noted in the January 2025 Supplemental Joshua Tree Census Report, "The majority of the study area was accessible via public road rights-of-way, parcels owned by the applicant, or parcels with right-of-entry agreements. Portions of the transmission line options were not accessible and therefore tree measurements and photographs could not be taken." Notably, 100% of areas that will experience direct impacts within the preferred gen-tie line have been surveyed for WJT.

WJT Census surveys were conducted in 2023 and April 2024 and verified on December 8 and 9, 2024. Data across these surveys were consolidated in the Supplemental Joshua Tree Census Report (TN261314). Census surveys followed the census instructions provided by CDFW. In 2023, a 1,000-foot buffer was employed for surveys covering the project site while a 500-foot buffer was employed for surveys covering the gen-tie line. In 2024, a 290-foot buffer was used. It should be noted that access to all biological resources information relating to the Western Joshua tree, including confidential figures, was provided to the Center for Biological Diversity, including access to the following:

- TN 261844 -- Attachment 1261 – Confidential Mapbook Figure 4
- CBD was notified on the WJT SharePoint database on January 13, 2025 and were given access on January 21, 2025.
- TN 261314 CEC data request 6, Attachment 126-1: SUPPLEMENTAL JOSHUA TREE CENSUS REPORT
- TN 254820 and TN 254821 WRESC Western Joshua Tree Report.

In summary, any Western Joshua tree that will be potentially subject to take as a result of the WRESC has already been included in the complete Western Joshua tree census.

4.0 RESERVOIR MANAGEMENT PLAN

Q: Did you review Ms. Anderson's third argument that the FSA improperly defers the development and disclosure of the Reservoir Management Plan.

A: Yes.

Q: Do you agree with her conclusions?

A: No, to begin, preparation of a Reservoir Management Plan as outlined in the FSA Condition of Certification BIO-7 is a condition of certification and is not a deferred mitigation. Condition of Certification BIO-7 outlines clear measures that must be implemented by the WRESC, and the Applicant is in agreement with this condition as proposed in the FSA.

The Reservoir Management Plan will be submitted well in advance of the commencement of construction activities related to reservoir, ensuring that all requirements set forth in the FSA are met proactively. This approach is a standard industry practice. Submitting the plan early allows for evaluation of its content and

facilitates timely incorporation of feedback. As outlined in Condition of Certification BIO-7, the Reservoir Management Plan will include, but is not limited to, the following information:

- Details of the design of the floating reservoir cover,
- Methods to minimize wildlife entrapment including fence type and height and escape ramps..
- Potential remedial measures, including installation of wildlife deterrents and habitat protection actions.
- Details on monitoring methods and monthly reporting or a process for evaluating the efficacy of the cover, ramps, and other wildlife protection features

Upon filling the reservoir, the surface reservoir will be permanently equipped with a liner and interlocking shape floating cover. As stated in Willow Rock Center for Biological Diversity Data Request Set 1 Response (TN 260809), Applicant has identified hexagonal floating covers as a possible option. Hexagonal floating covers are used to cover industrial wastewater, tailing dams, treatment processing plants, metal and petrochemical plants, leachate ponds, airport drainage features, raw water reservoirs, and other applications for heat retention, photosynthesis prevention, and/or a wildlife deterrent.

Q: Does this conclude your rebuttal testimony?

A: Yes.

ATTACHMENT A

Declarations

DECLARATION OF KATE MOSS

I, Kate Moss, declare as follows:

1. I am presently employed by WSP Canada Inc. as Principal Biologist.

2. A copy of my professional qualifications and experience was previously submitted as part of the Opening Testimony submitted on July 30, 2025 (TN265170) and is incorporated herein by reference.

3. The rebuttal testimony on Biological Resources for the Willow Rock Energy Storage Center (21-AFC-02) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed therein.

5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: August 6, 2025

Kate Moss

Principal Biologist

WSP Canada Inc.

DECLARATION OF SCOTT CRAWFORD

I, Scott Crawford, declare as follows:

1. I am presently employed by WSP USA Inc. as a Biological Group Manager

2. A copy of my professional qualifications and experience was previously submitted as part of the Opening Testimony submitted on July 30, 2025 (TN265170) and is incorporated herein by reference.

3. The rebuttal testimony on Biological Resources for the Willow Rock Energy Storage Center (21-AFC-02) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed therein.

5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: August 6, 2025

Scott Crawford

Biology Group Manager

WSP USA Inc.

DECLARATION OF DAVID STEIN

I, DAVID STEIN, declare as follows:

1. I am presently employed by WSP USA Inc. as a Senior Vice President.

2. A copy of my professional qualifications and experience was previously submitted as part of the Opening Testimony submitted on July 30, 2025 (TN265170) and is incorporated herein by reference.

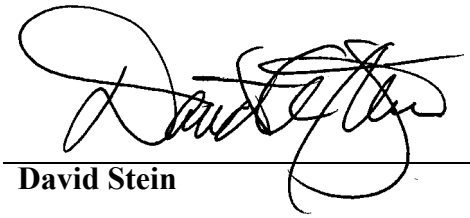
3. The rebuttal testimony on Biological Resources for the Willow Rock Energy Storage Center (21-AFC-02) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed therein.

5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: August 6, 2025



David Stein

Senior Vice President

WSP USA Inc.

DECLARATION OF CODY NIEHUS

I, Cody Niehus, declare as follows:

1. I am presently employed by Hydrostor as Development Manager.

2. A copy of my professional qualifications and experience was previously submitted as part of the Opening Testimony submitted on July 30, 2025 (TN265170) and is incorporated herein by reference.

3. The rebuttal testimony on Biological Resources for the Willow Rock Energy Storage Center (21-AFC-02) relating to transmission line construction and engineering controls was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed therein.

5. I am personally familiar with the facts and conclusions presented in the testimony relating to Section 3 above and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: August 6th 2025

Cody Niehus

Digitally signed by Cody Niehus
DN: C=US, E=cody.niehus@hydrostor.ca, O=Hydrostor USA, OU=Development, CN=Cody Niehus
Reason: I attest to the accuracy and integrity of this document
Date: 2025.08.06 15:11:34-06'00'

Cody Niehus

Development Manager

Hydrostor Inc.